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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,627	08/29/2003	Kyoji Marumoto	12844.0040US01	1833

52835 7590 08/10/2006

HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. BOX 2902
MINNEAPOLIS, MN 55402-0902

EXAMINER	
PHAM, TAMMY T	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/652,627	MARUMOTO, KYOJI	
	Examiner	Art Unit	
	Tammy Pham	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1-2 have been amended. Claims 1-8 are pending.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Yamamoto et al. (US Patent Application No: 2002/0140685 A1) and Okano et al. (US Patent No: 4,887,224).

As for claim 1, AAPA teaches of an image display system comprising:

a display memory for storing display image data to be displayed on a display panel;

a CPU which is couple to the display memory and to the area image data generating section so as to perform controls thereof

wherein the CPU sores a frame image data to be a frame image into the display memory before the area image data is transferred to the display memory, whereby the frame image data and the area image data are compose with each other to form an image captured image data to be

stored into the display memory, the in-frame captured image data being displayed on the display panel in section [0004].

The AAPA does not teach of an area image data generating section or of image data provided by a DMA data transfer.

Yamamoto teaches of an area image data generating section (Yamamoto 24) for supplying an area image data which is corresponding to a specific area of a captured image data by an image capturing device (Yamamoto 12) to the display memory (Yamamoto 8) in section [0048].

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the area image data generating section of Yamamoto with the image display system of the AAPA in order to save power through the image refreshing methods (see Yamamoto: section [0012]).

Okano teaches of supplying area image data (MMR encoded data) generating section being provided by a direct memory access (DMA) in column 3, lines 65-69.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to utilize the DMA as shown by Okano with the image data generating section of Yamamoto and the image display system of AAPA in order to increase the speed of data transfer.

As for claim 2, AAPA teaches of a display device comprising:

A display panel;

A display memory for storing a display image data to be displayed on a display panel;

Storing means for storing a frame image data to be frame image to be supplied to the display memory in section [0005].

AAPA goes on to teach of an image capturing device;

A CPU which is connected to the display panel, the display memory, the storing means, the image capturing device;

Wherein the CPU reads out a frame image data to be a frame image from the storing means and stores the frame image data into the display memory before the image data is transferred to the display memory, whereby the frame image data and the area image data area composed with each other to form an in-frame captured image data to be stored into the display memory, the in-frame captured image data being displayed on the display panel in section [0004].

The AAPA does not teach of an area image data generating section or of image data provided by a DMA data transfer.

Yamamoto teaches of an area image data generating section (Yamamoto 24) for supplying an area image data which is corresponding to a specific area of a captured image data by an image capturing device (Yamamoto 12) to the display memory (Yamamoto 8) in section [0048].

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the area image data generating section of Yamamoto with the image display system of the AAPA in order to save power through the image refreshing methods (see Yamamoto: section [0012]).

Okano teaches of supplying area image data (MMR encoded data) generating section being provided by a direct memory access (DMA) in column 3, lines 65-69.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to utilize the DMA as shown by Okano with the image data generating section of Yamamoto and the image display system of AAPA in order to increase the speed of data transfer.

As for claim 3, Yamamoto teaches of a display device (Yamamoto Fig. 1) according to claim 2, wherein the area image data generating section (Yamamoto 24) includes a buffer memory (Yamamoto 16, 20) for storing the captured image data, specific area storing means (Yamamoto 15, 19) for storing the specific area in the captured image, and a transfer address generating circuit (Yamamoto 17, 21) for successively generating addresses of the specific area in the specific area storing means, wherein the addresses of the specific area generated by the transfer address generating circuit (Yamamoto 17, 21) are also supplied to the buffer memory (Yamamoto 16) so that an image data specified by the addresses are successively read out and output in section [0048].

As for claim 4, Yamamoto teaches of a display device (Fig. 1) according to claim 2, wherein the area image data generating section (Yamamoto 24) supplies to the display memory with the area image data corresponding to the specific area as a valid data, while an image data other than the specific area is defined as an invalid data in section [0015].

As for claim 5, Yamamoto teaches of a display device (Fig. 1) according to claim 4, wherein the area image data generating section (Yamamoto 24) includes a buffer memory (Yamamoto 16, 20) for storing the captured image data, specific area storing means (Yamamoto 15, 19) for storing the specific area in the captured image, gate means for receiving a gate signal from the specific area storing means, and a read-out address generating circuit (Yamamoto 17, 21) for generating a read-out address and supplying the read-out address to the buffer memory and the gate means(Yamamoto 16, 20), wherein only the read-out address corresponding to the specific area stored in the specific area storing means (Yamamoto 15, 19) is passed through the gate means so that the area image data is made valid, while the image data other than the area image data is made invalid in section [0015].

As for claim 6, Yamamoto teaches of a display device (Fig. 1) according to claim 3, wherein said specific area storing means (Yamamoto 15, 19) includes an area memory for storing the specific area as an area map in section [0048].

As for claim 7, Yamamoto teaches of a display device (Fig. 1) according to claim 3, wherein the specific area storing means (Yamamoto 15, 29) includes an area register used for determining the specific area in accordance with the coordinates for plurality of points in section [0005, 0048].

As for claim 8, Yamamoto teaches of a display device (Fig. 1) according to claim 5, wherein the specific area storing means (Yamamoto 15, 19) includes an area memory for storing

the specific area as an area map, and the read-out address generating circuit includes an area register used for determining a specific area for generating a read-out address in accordance with the coordinates for a plurality of points in section [0051].

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

In regards to the argument that Yamamoto "does not suggest checking for inconsistencies between lines in a specific area of the screen image (see page 5, 3rd paragraph of arguments dated 5/24/2006); as Applicant admits, in section [0048] Yamamoto does teach of finding and correcting inconsistencies in regards to one line and hence one line can be seen as an area of an image.

In regards to the argument that Yamamoto does not suggest nor teach the amended limitation of the "DMA data transfer of data of a specific area of a captured image (see page 5, 3rd paragraph)," DMA is well known in the arts and it would have been obvious to include this in order to speed up the data transfer process, however, for clarity, please refer to Okano in column 3, lines 65-59.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tammy Pham
August 3, 2006

ALEXANDER EISEN
PRIMARY EXAMINER
TECHNOLOGY CENTER 2600